

## REMARKS/ARGUMENTS

Claims 1-14, 16-57, 67, and 69-71 are pending. Claim 71 is added by this amendment.

Claims 15 and 58-66 are cancelled by this amendment.

### Claim Rejections Based on Prior Art

#### **Rejections Based on Sutter**

Claims 1-6, 8, 11, 14-17, 19, 22, 26, 29-32, 35, 46, and 48-50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,947,733 to Sutter et al. (“Sutter”). Sutter discloses an implant 1 that is adapted to have an abutment 100, 800 attach to the implant and be secured with a screw 400. FIGS. 3A, 7A, 7C. As shown in FIG. 5, Sutter discloses an implant 1 that has “special non-rotationally symmetrical receiving contour 15 in the inner cone 14 in the implant head 10.” Col. 9, ll. 55-57. As shown in FIG. 5, the non-rotationally symmetrical receiving contour 15 is a polygon. Col. 9, ll. 57-58. The abutment 800, depicted in FIGS. 6A, 6B, has a “counter-contour 825 which is complimentary to the receiving contour 15 present in the implant 1.” The abutment 800 also has a “radially encircling groove 835” that contains an expanding ring 500. Col. 10, ll. 38-67. Sutter describes that the clamping screw 400 (see FIG. 2D) with the expanding ring 500 positioned in the groove 421 of the screw 400 is placed into the inlet 830 of the abutment, as shown in FIG. 6C. Col. 10, l. 62 – Col. 11, l. 4. Sutter discloses that the “counter-contour 825” of the abutment engages the “receiving contour 15” of the implant 1. FIG. 7A; Col. 11, ll. 12-13. The thread 430 of the screw 400 engages the thread 21 of the implant, causing the screw 400 to press on the expansion ring 500 and spread the expansion ring 500. Col. 11, ll. 13-14. Sutter teaches that the expansion of the expansion ring 500 secures an abutment to an implant by applying pressure on the abutment so that the abutment is rotationally fixed to the implant when a screw 400 is tightly fastened to the implant. Col. 8, ll. 17-25; FIG.

3A. As shown in FIG. 7B, the screw 400 causes the expansion ring 500 to expand so that abutment surfaces 828 and 829 contact cone sections 18 and 19 of the implant 1. Col. 11, ll. 20-25.

Thus, Sutter only discloses an implant with a single anti-rotational cavity, the “receiving contour 15.” The Examiner states that section 18 of the inner cone 14 of the implant 1 is an “anti-rotation cavity.” However, FIGS. 5 and 7B of Sutter clearly show that section 18 has a circular cross section. Thus, there is nothing about section 18 of cone 14 that could possibly serve as an “anti-rotation cavity” as used in the pending application. The cone 14 of the implant 1 shown in Sutter is a tapered surface, however, only when a screw 400 is tightened into threads 21 of the implant does the expansion ring 500 apply pressure to the abutment 800 such that the abutment 800 deforms and is rotationally secured to the implant 1, based on contact between the outer surface of the abutment 800 and surfaces on the inner cone 14 of the implant. Therefore, Sutter only discloses a single “anti-rotation cavity” on the implant 1, the receiving contour 15.

Independent claims 1, 14, and 29 all recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Independent claims 46 and 50 recite “an internal bore having two distinct internal anti-rotational features.” “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); M.P.E.P. § 2131. As previously described, Sutter only discloses an implant with a single “anti-rotation cavity,” as shown in FIG. 5 of Sutter. Thus, Sutter fails to teach, disclose, or suggest all of the limitations of claims 1, 14, 29, 46, and 50.

To further clarify the Applicant’s invention, claim 1 has been amended to recite that the first anti-rotation cavity and the second anti-rotation cavity each have a non-round shape, and

that the second anti-rotation cavity is spaced away from the first anti-rotation cavity. These features are clearly not disclosed in prior art.

Claim 14 has been amended to recite that the first anti-rotational feature defines a non-round cross-sectional shape and that the second anti-rotational feature also defines a non-round cross-sectional shape. Claim 14 has further been amended to recite that the second anti-rotational feature has a smaller cross-sectional dimension than the cross-sectional dimension of the first anti-rotational feature.

Claim 29 has been amended to clarify the scope of claim 29 and now recites that the first anti-rotational feature has a non-round shape, and that the second anti-rotational feature has a non-round shape.

Claim 46 has been amended to clarify that the anti-rotational features are at different locations within the bore.

Claim 50 has been amended to recite that the anti-rotational features have non-round shapes.

Based on these clarifying amendments and the reasons previously recited, Sutter does not anticipate, nor render obvious, claims 1, 14, 29, 46, and 50, and Applicant respectfully requests that these rejections be withdrawn.

Dependent claims 2-6, 8, 11, 15-17, 19, 22, 26, 30-32, 35, 48, and 49 depend either directly or indirectly from one of independent claims 1, 14, 29, 46, and 50. As not all of the limitations of claims 1, 14, 29, 46, and 50 are disclosed or suggested by Sutter, claims 2-6, 8, 11, 15-17, 19, 22, 26, 30-32, 35, 48, and 49 are not anticipated nor rendered obvious by Sutter. Thus, Applicants respectfully request that these rejection be withdrawn.

### **Rejections Based on Schiel**

Claims 1-6, 8, 11, 14, 17-22, 26, 29, 31-35, and 46-50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,993,213 to Schiel et al. (“Schiel”). Schiel discloses an implant 2 that has a single internal hex socket 15. FIG. 4. Schiel in no way discloses a second “anti-rotation cavity.” The Examiner states that the top portion of the hex socket 15 can be considered as a separate anti-rotation feature from the bottom portion of the hex socket 15. However, the Examiner has offered no teaching from the art that shows that a single feature can be considered as two distinct features. A person having reasonable skill in the art would simply consider Schiel as disclosing a single anti-rotation cavity, the single hex socket 15. The fact that Schiel describes his invention as having a single hexagonal socket 15, that interacts with a single hexagonal insert 10 of the abutment 1, shows that only a single anti-rotation cavity is taught or suggested by Schiel. Col. 2, ll. 25-34.

Independent claims 1, 14, and 29 all recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Independent claims 46 and 50 recite “an internal bore having two distinct internal anti-rotational features.” “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); M.P.E.P. § 2131. As previously described, Schiel only discloses an implant with a single “anti-rotation cavity,” as shown in FIG. 4 of Schiel.

Based on the clarifying amendments made to claims 1, 14, 29, 46, 50, and the reasons recited above, Schiel does not anticipate, nor render obvious, claims 1, 14, 29, 46, and 50, and Applicant respectfully requests that these rejections be withdrawn.

Dependent claims 2-6, 8, 11, 17-22, 26, 31-35, and 47-49 depend either directly or indirectly from one of independent claims 1, 14, 29, 46, and 50. As not all of the limitations of claims 1, 14, 29, 46, and 50 are disclosed or suggested by Schiel, claims 2-6, 8, 11, 17-22, 26, 31-35, and 47-49 are not anticipated nor rendered obvious by Schiel. Thus, Applicants respectfully request that these rejection be withdrawn.

**Claim Rejections Based On Sutter in view of Kownacki**

Claims 9, 10, 27, and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent No. 5,302,125 to Kownacki et al. (“Kownacki”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Kownacki does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Kownacki discloses an implant 12 with a circular cross section portion that is adapted to receive an abutment 20. FIG. 8. There is no anti-rotation feature present in the implant 12 of FIG. 8, as the abutment 20 would be freely rotatable within the implant 12 until the locking screw 22 is tightened into place. Independent claim 1, from which claims 9 and 10 depend, and independent claim 14, from which claims 27 and 28 depend recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Sutter or Kownacki. Thus, not all of the limitations of the claims 9, 10, 27, and 28 are taught or suggested by Sutter in view of Kownacki. Therefore, claims 9, 10, 27, and 28 are not unpatentable over Sutter in view of Kownacki, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Sutter in view of Niznick**

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent No. 5,061,181 to Niznick (“Niznick”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Niznick does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Niznick discloses an implant 66 with a single anti-rotation feature being driven into the patients jaw. FIG. 3D. Niznick shows that the implant 10 has a single anti-rotation cavity 18. FIG. 1. Independent claim 1, from which claims 12 and 13 depend, recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Sutter or Niznick. Thus, not all of the limitations of the claims 12 and 13 are taught or suggested by Sutter in view of Niznick. Therefore, claims 12 and 13 are allowable over Sutter in view of Niznick, and Applicants respectfully request that this rejection be withdrawn.

Claim 51 is also rejected based on Sutter in view of Niznick. Claim 51 recites “applying a torque to a first internal anti-rotation feature having a polygonal shape,” “engaging an abutment with a second internal anti-rotation feature ... having a polygonal shape,” and “the second internal anti-rotation feature being a different spatial location than the first internal anti-rotation feature.” One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Niznick does not satisfy this test. As previously discussed above, neither Sutter nor Niznick disclose or suggest more than one anti-rotation cavity. Thus, not all of the limitations of the

claim 51 are taught or suggested by Sutter in view of Niznick. Therefore, claim 51 is allowable over Sutter in view of Niznick, and Applicants respectfully request that this rejection be withdrawn.

Claim 67 is additionally rejected based on Sutter in view of Niznick. Claim 67 recites an implant having “a first anti-rotational feature comprising a first anti-rotational cavity having a polygonal shape and located in the bore, and a second anti-rotational feature comprising a second anti-rotational cavity having a polygonal shape and located in the bore distinct from the first anti-rotational cavity.” One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Niznick does not satisfy this test. As previously discussed above, neither Sutter nor Niznick disclose or suggest more than one anti-rotation cavity. Thus, not all of the limitations of the claim 67 are taught or suggested by Sutter in view of Niznick. Therefore, claim 67 is allowable over Sutter in view of Niznick, and Applicants respectfully request that this rejection be withdrawn.

#### **Claim Rejections Based On Sutter in view of Duerr**

Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent No. 5,823,776 to Duerr et al. (“Duerr”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Duerr does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Duerr discloses an implant 10’ with a single anti-rotation feature 26’ that allows spacing of an abutment 32’ at 30° increments. FIGS. 4a, 4b; Col. 5, ll. 4-13. However, Duerr in no way teaches or suggests a second anti-rotation feature within the implant. Independent claim

14, from which claim 23 depends, recites “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Sutter or Duerr. Thus, not all of the limitations of the claim 23 are taught or suggested by Sutter in view of Duerr. Therefore, claim 23 is allowable over Sutter in view of Duerr, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Sutter in view of Bassett**

Claims 24 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent No. 6,012,923 to Bassett et al. (“Bassett”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Bassett does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Bassett discloses an implant 362 with a single anti-rotation feature 364 that receives a cuff 348. FIG. 10B; Col. 7, ll. 22-41. Bassett shows that the abutment 340 is positioned by a hex 354 of the cuff 348, thus the abutment 340 is positioned relative to the cuff 348, while the cuff 348 is positioned relative to the implant 362. Therefore, Bassett allows double indexing only when an intermediate part, cuff 348, is located between the implant 362 and the abutment 340. However, Bassett only discloses an implant 362 having a single “anti-rotation cavity,” the engaging feature 364. FIG. 10B; Col. 7, ll. 31-34. Independent claim 14, from which claims 24 and 25 depend, recites “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Sutter or Bassett. Thus, not all of the limitations of the claims 24 and 25 are taught or suggested by Sutter in view of Bassett. Therefore, claims 24 and 25 are allowable over Sutter in view of Bassett, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Sutter in view of Gittleman**

Claims 36 and 39-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent Pub. No. 2002/0127515 by Gittleman (“Gittleman”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Gentleman does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Gittleman discloses an implant 80 that has a single anti-rotation cavity adapted to mate with a hex 57 of an abutment 65. FIG. 5; ¶ [0023]. Gittleman in no way teaches or suggest an implant with multiple anti-rotation cavities. Independent claims 36, 39, and 45 all recite an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Further, claim 36 recites that the first anti-rotation feature and the second anti-rotation feature each have “a polygonal shape,” and that the second internal anti-rotation feature has “a smaller minor diameter than a minor diameter of the first internal anti-rotation feature.” Claim 39 recites that the first anti-rotation section and the second anti-rotation section has “a non-round shape,” and that the second anti-rotation section is “spaced away from the first internal anti-rotation section.” Claim 45 has been amended to recite a first anti-rotation section “having a hexagonal shape and a first minor diameter,” a second anti-rotation section “having a hexagonal shape and a second minor diameter smaller than the first minor diameter.” Such limitations are neither taught nor suggested by Sutter or Gittleman. Thus, not all of the limitations of independent claims 36, 39, and 45 are taught or suggested by Sutter in view of Gittleman.

For at least these same reasons, dependent claims 40-44 that depend either directly or indirectly from independent claim 39 are allowable over Sutter in view Gittleman.

### **Claim Rejections Based On Sutter in view of Gittleman and Sager**

Claim 37 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Gittleman and further in view of U.S. Patent No. 6,315,563 to Sager (“Sager”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Gentleman and Sager does not satisfy this test. The shortcomings of the teachings of Sutter and Gittleman have been discussed above, and apply equally to this rejection. Sager discloses an implant 10 that has a single anti-rotation cavity 24 adapted to mate with a lock region 38 of an abutment 32. FIG. 1; Col. 5, ll. 50-67. Sager in no way teaches or suggest an implant with multiple anti-rotation cavities. Independent claim 36, from which claim 37 depends recites an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Such a limitation is neither taught nor suggested by Sutter, Gittleman, or Sager. Thus, not all of the limitations of independent claim 36 are taught or suggested by Sutter in view of Gittleman and Sager. Therefore, claim 36 is allowable over Sutter in view of Gittleman and Sager, and for at least these same reasons, dependent claim 37 is allowable over Sutter in view Gittleman and Sager.

### **Claim Rejections Based On Sutter in view of Gittleman and Niznick**

Claims 38 and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Gittleman and further in view of Niznick. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Gentleman and Niznick does not satisfy this test. The shortcomings of the teachings of Sutter and Gittleman and Niznick have been discussed above, and apply equally to this rejection. Independent claim 36, from which claim 38 depends,

and independent claim 39, from which claim 44 depends, recite an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Such a limitation is neither taught nor suggested by Sutter, Gittleman, or Niznick. Thus, not all of the limitations of independent claims 36 and 39 are taught or suggested by Sutter in view of Gittleman and Niznick. Therefore, claims 36 and 39 are allowable over Sutter in view of Gittleman and Sager, and for at least these same reasons, dependent claims 38 and 44 are allowable over Sutter in view Gittleman and Sager.

#### **Claim Rejections Based On Sutter in view of Broberg**

Claims 52-55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of U.S. Patent No. 6,280,195 to Broberg et al. (“Broberg”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Broberg does not satisfy this test. The shortcomings of the teachings of Sutter have been discussed above, and apply equally to this rejection. Broberg describes an implant 1 that has a socket with a single polygonal section. Col. 5, ll. 7-16. Broberg further describes an abutment 31 that has a mating end 32 with a polygonal section 33 that mates with the polygonal section of the implant 1. FIG. 9A; Col. 6, ll. 1-8. Broberg in no way teaches or suggest an implant with multiple anti-rotation features. Independent claims 52 and 55 both recite “coupling the suitable abutment to one of two internal anti-rotation features.” Such a limitation is neither taught nor suggested by Sutter or Broberg.

Claim 52 has been amended to recite the “two internal anti-rotation features having a polygonal shape and different diameters.”

Amended claim 55 recites “the two internal anti-rotation features each having a non-round shape.”

Therefore, based on the reasons stated above and the clarifying amendments, claims 52 and 55 are not unpatentable over Sutter in view of Broberg, and Applicants respectfully request that this rejection be withdrawn. For at least these same reasons, dependent claims 53 and 54 that depend either directly or indirectly from independent claim 52 are allowable over Sutter in view Broberg.

**Claim Rejections Based On Sutter in view of Broberg and Niznick**

Claim 56 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Broberg and further in view of Niznick. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Broberg and Niznick does not satisfy this test. The shortcomings of the teachings of Sutter, Broberg and Niznick have been discussed above, and apply equally to this rejection. There is no teaching or suggestion with any of Sutter, Broberg, or Niznick of an implant with “two internal anti-rotation features” as recited in claim 55, from which claim 56 depends. Thus, not all of the limitations of independent claim 55 are taught or suggested by Sutter in view of Broberg and Niznick. Therefore, claim 55 is allowable over Sutter in view of Broberg and Niznick, and for at least these same reasons, dependent claim 56 is allowable over Sutter in view Broberg and Niznick.

**Claim Rejections Based On Sutter in view of Broberg and Kumar**

Claim 57 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Broberg and further in view of U.S. Patent No. 6,217,332 to Kumar (“Kumar”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Broberg and Kumar does not satisfy this test. The shortcomings of the teachings of Sutter and Broberg have been

discussed above, and apply equally to this rejection. Kumar discloses a carrier 16 for a dental implant 20 that also serves as a cap for a vial 12 that a sterile implant 20 is kept in prior to being implanted in a patient. FIG. 1; Col. 5, ll. 32-44. Kumar teaches an external anti-rotation feature 64 is present on the implant 20 to rotationally fix an abutment to the implant 20. Col. 7, ll. 48-60. Thus, Kumar not only fails to disclose more than one anti-rotational feature, Kumar discloses an external anti-rotational feature, not an internal anti-rotational feature as recited in independent claim 55. There is no teaching or suggestion within any of Sutter, Broberg, or Kumar of an implant with “two internal anti-rotation features” as recited in claim 55, from which claim 57 depends. Thus, not all of the limitations of independent claim 55 are taught or suggested by Sutter in view of Broberg and Kumar. Therefore, claim 55 is allowable over Sutter in view of Broberg and Kumar, and for at least these same reasons, dependent claim 57 is allowable over Sutter in view Broberg and Kumar.

#### **Claim Rejections Based On Sutter in view of Niznick and Kumar**

Claim 69 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Niznick and further in view of Kumar. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Niznick and Kumar does not satisfy this test. The shortcomings of the teachings of Sutter and Niznick and Kumar have been discussed above, and apply equally to this rejection. None of the cited references discloses or suggests an implant with a first anti-rotational feature and a second anti-rotational feature. There is no teaching or suggestion within any of Sutter, Niznick, or Kumar of an implant with “a first anti-rotational feature” and “a second anti-rotational feature” as recited in independent claim 67, from which claim 69 depends. Thus, not all of the limitations of independent claim 67 are taught or

suggested by Sutter in view of Niznick and Kumar. Therefore, claim 67 is allowable over Sutter in view of Niznick and Kumar, and for at least these same reasons, dependent claim 69 is allowable over Sutter in view Niznick and Kumar.

**Claim Rejections Based On Sutter in view of Niznick and Beaty**

Claim 70 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sutter in view of Niznick and further in view U.S. Patent No. 5,685,715 to Beaty et al. (“Beaty”). One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Sutter in view of Niznick and Beaty does not satisfy this test. The shortcomings of the teachings of Sutter and Niznick have been discussed above, and apply equally to this rejection. Beaty discloses an impression coping 10 with a socket 22 that interacts with an implant 40 that has a single external hexagonal boss 42. FIGS. 2, 4, 4a; Col. 3, ll. 2-26. None of the cited references discloses or suggests an implant with a first anti-rotational feature and a second anti-rotational feature. There is no teaching or suggestion within any of Sutter, Niznick, or Beaty of an implant with “a first anti-rotational feature” and “a second anti-rotational feature” as recited in independent claim 67, from which claim 70 depends. Thus, not all of the limitations of independent claim 67 are taught or suggested by Sutter in view of Niznick and Beaty. Therefore, claim 67 is allowable over Sutter in view of Niznick and Beaty, and for at least these same reasons, dependent claim 70 is allowable over Sutter in view Niznick and Beaty.

**Claim Rejections Based On Schiel in view of Kownacki**

Claims 9, 10, 27, and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Kownacki. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143.

Schiel in view of Kownacki does not satisfy this test. The shortcomings of the teachings of Schiel and Kownacki have been discussed above, and apply equally to this rejection. Independent claim 1, from which claims 9 and 10 depend, and independent claim 14, from which claims 27 and 28 depend recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Schiel or Kownacki. Thus, not all of the limitations of the claims 9, 10, 27, and 28 are taught or suggested by Schiel in view of Kownacki. Therefore, claims 9, 10, 27, and 28 are not unpatentable over Schiel in view of Kownacki, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Schiel in view of Niznick**

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Niznick. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of Niznick does not satisfy this test. The shortcomings of the teachings of Schiel and Niznick have been discussed above, and apply equally to this rejection. Independent claim 1, from which claims 12 and 13 depend, recite “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Schiel or Niznick. Thus, not all of the limitations of the claims 12 and 13 are taught or suggested by Schiel in view of Niznick. Therefore, claims 12 and 13 are allowable over Schiel in view of Niznick, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Schiel in view of Duerr**

Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Duerr. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of

Duerr does not satisfy this test. The shortcomings of the teachings of Schiel and Duerr have been discussed above, and apply equally to this rejection. Independent claim 14, from which claim 23 depends, recites “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Schiel or Duerr. Thus, not all of the limitations of the claim 23 are taught or suggested by Schiel in view of Duerr. Therefore, claim 23 is allowable over Schiel in view of Duerr, and Applicants respectfully request that this rejection be withdrawn.

#### **Claim Rejections Based On Schiel in view of Bassett**

Claims 24 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Bassett. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of Bassett does not satisfy this test. The shortcomings of the teachings of Schiel and Bassett have been discussed above, and apply equally to this rejection. Independent claim 14, from which claims 24 and 25 depend, recites “a first anti-rotation cavity” and “a second anti-rotation cavity.” Such a limitation is neither taught nor suggested by Schiel or Bassett. Thus, not all of the limitations of the claims 24 and 25 are taught or suggested by Schiel in view of Bassett. Therefore, claims 24 and 25 are allowable over Schiel in view of Bassett, and Applicants respectfully request that this rejection be withdrawn.

#### **Claim Rejections Based On Schiel in view of Gittleman**

Claims 36, 39, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Gittleman. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of Gittleman does not satisfy this test. The shortcomings of the teachings of

Schiel and Gittleman have been discussed above, and apply equally to this rejection. Independent claims 36, 39, and 45 all recite an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Such a limitation is neither taught nor suggested by Schiel or Gittleman. Additionally, the clarifying amendments made to claims 36, 39, and 45, discussed above, further differentiate those claims from the cited references. Thus, not all of the limitations of independent claims 36, 39, and 45 are taught or suggested by Schiel in view of Gittleman. Therefore, claims 36, 39 and 45 are not unpatentable over Schiel in view of Gittleman, and Applicants respectfully request that this rejection be withdrawn.

**Claim Rejections Based On Schiel in view of Gittleman and Sager**

Claim 37 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Gittleman and further in view of Sager. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of Gentleman and Sager does not satisfy this test. The shortcomings of the teachings of Schiel, Gittleman, and Sager have been discussed above, and apply equally to this rejection. Independent claim 36, from which claim 37 depends recites an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Such a limitation is neither taught nor suggested by Schiel, Gittleman, or Sager. Thus, not all of the limitations of independent claim 36 are taught or suggested by Schiel in view of Gittleman and Sager. Therefore, claim 36 is allowable over Schiel in view of Gittleman and Sager, and for at least these same reasons, dependent claim 37 is allowable over Schiel in view Gittleman and Sager.

**Claim Rejections Based On Schiel in view of Gittleman and Niznick**

Claims 38 and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel in view of Gittleman and further in view of Niznick. One basic requirement for a *prima facie* case of obviousness is that the prior art references must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Schiel in view of Gentleman and Niznick does not satisfy this test. The shortcomings of the teachings of Schiel and Gittleman and Niznick have been discussed above, and apply equally to this rejection. Independent claim 36, from which claim 38 depends, and independent claim 39, from which claim 44 depends, recite an implant with “a first-internal anti-rotation” feature and “a second internal anti-rotation” feature. Such a limitation is neither taught nor suggested by Schiel, Gittleman, or Niznick. Thus, not all of the limitations of independent claims 36 and 39 are taught or suggested by Schiel in view of Gittleman and Niznick. Therefore, claims 36 and 39 are allowable over Schiel in view of Gittleman and Sager, and for at least these same reasons, dependent claims 38 and 44 are allowable over Schiel in view Gittleman and Sager.

**Claim Objections**

Claim 7 was objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Original claim 7 has been rewritten in independent form as new claim 71. Applicants respectfully believes that new claim 71 is allowable as previously indicated by the Examiner.

**Conclusion**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. It is believed that \$120.00 is presently due to cover the additional fees for a one month extension of time. The Commissioner is authorized to deduct this fee from Nixon Peabody LLP Deposit Account No. 514181, Order No. 247168-000245USPT. Should any additional fees be required (except for payment of the issue fee), the Commissioner is authorized to deduct these fees from Nixon Peabody LLP Deposit Account No. 514181, Order No. 247168-000245USPT.

If there are any matters which may be resolved or clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at the number indicated.

Respectfully submitted,



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